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A contingency management approach to parole.

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A CONTINGENCY MANAGEMENT APPROACH TO PAROLE

by

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B.A., St. Francis Xavier University, 1967

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ABSTRACT

In a major Canadian study, Waller (1974) raised serious doubts regarding the effectiveness of the Parole system in Canada. To determine whether or not another approach to Parole might be more effective, two different approaches to Parole were simulated in the laboratory. One approach was the traditional one. The alternative approach was the Contingency Management approach, with its assumption that the behaviour is learned or is learnable. The behaviour would therefore be subject to learning theory principles. The subjects were all male student volunteers from a summer student population at the University of Windsor. Parolees, by definition, are released prisoners. This study therefore required 2 separate simulations. All subjects participated in a simulation of prison conditions, after which they were randomly assigned to either the traditional Parole group or the Contingency Management group. A game was used to simulate Parole. The game had a number of restrictive rules, with specified punishments for violation of the rules. The subjects were required to make choices between stimulus lights on a panel, for which they earned points. The points were converted to cash at the end of each subject's participation in the game. For cooperating with the experimenter on each trial, the subject was assured a certain number of points. However, on each trial, the subject could possibly gain extra points for choosing a different light than the experimenter. The subject also risked punishment when he did not cooperate. Cooperation was the focus of the game, since it is the essence of the Parole situation. The parolee learns cooperative behaviour in the Parole situation. The

cooperative behaviour learned should then be of considerable help to the parolee in his readjustment to the community. For the traditional group, the rules of the game were held constant throughout. For the experimenteral group, the subjects could delete a game rule after every 50 consecutive cooperative responses. Since each violation of a game rule cost the subjects points, the removal of each rule meant the chance of losing points was diminished. It was therefore reinforcing to the subjects to have those rules removed, as the number of points earned and consequently cash received would be greater. The Contingency Management group gave a significantly greater number of cooperative responses than the traditional Parole group. The results were discussed in terms of learning theory, with an emphasis on conducting other feasibility studies also using a Contingency Management approach.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION

Parole, as defined by the National Parole Board, "...is the release of selected inmates from confinement to continue serving their sentences in the community under varying degrees of supervision" (National Parole Board booklet, "I'm Glad You Asked", 1979). The principal objective of parole is the successful reintegration of the inmate into society as a law-abiding citizen.

Just how successful the parole system is in meeting its main objective is yet to be determined. The former Chairman of the National Parole Board, T. George Street, quoted success rates as high as 90% for National parolees, "success" being defined as not having to be returned to prison for violating parole conditions or committing new offenses (Waller, 1974). More recent statistics from the National Parole Board using the same criteria indicate a 75% success rate for the year 1977 (National Parole Board Pamphlet, "I'm Glad You Asked", 1979). In a well designed and very thorough research project, Waller (1974) set out to investigate the effects of prison, parole and after-care on the behaviour of those released from prison. His work represents the first serious Canadian attempt, and so far the only one, to scientifically evaluate the effects of the penal system, including parole.

Of the 423 all male subjects in Waller's (1974) study, 210 were released on National Parole, and the remaining 213 were unconditionally released at expiration of sentence. The criterion for success or failure was re-arrest. At the end of the 24 month follow-up period for each case, 44% of the parolees had been re-arrested or had their paroles revoked, while 68% of the unconditionally released men had been re-arrested for an indictable offense. The success rate for parolees was 56%, while that of the unconditionally released men was 32%, the difference between the two groups being 24%. This difference becomes much less significant when it is realized that those relased on parole were considered much better risks. While Waller (1974) used a different criterion for success than is employed by the Parole Board, he found the 56% success rate to be generally in agreement with parole statistics from other countries. Consequently, in assessing parole effectiveness, Waller's figure is felt to be more meaningful and more realistic than that of the Parole Board.

In Waller's (1974) study, there was only a difference of 24% in the success rate of those under supervision compared to those who were not, and, as already indicated, the factors of "Parole" and "better risks" were confounded. In view of these findings concerning the limited effectiveness of present Parole practices, it would seem worthwhile to experiment with new approaches to Parole supervision to determine if Parole supervision might be made more effective. Indeed, in the face of Waller's (1974) results, it is difficult to imagine any new system being less effective.

The present study will examine the current approach to Parole

supervision, with its implicit assumptions, and suggest an alternative approach based on other assumptions. Both the current approach and the proposed alternative will be simulated in the laboratory to determine what differences, if any, these two approaches might produce on the behaviour of the subjects. The simulation approach was chosen over other approaches, such as the operations research approach, due in part to the time and resources available. Simulations are used to represent some aspect of a real life situation, and there are sufficient examples in the literature of the uses of simulations to justify such an approach in examining the problem which was the concern of this study.

Unless otherwise specified, in the context of this study, Parole will refer only to National Parole, and any reference to the Board will mean the National Parole Board. Some provinces have provincial parole boards and provincial parole systems in addition to the national system, but they operate under different conditions and regulations, and are therefore excluded from this study. To include provincial parole boards would unnecessarily complicate the subject matter.

Review of the Literature

Before proceeding to discuss either approach in Parole supervision, a review of the literature would appear to be in order. The major study of any value located is that of Waller (1974), already cited. As is noted by Wallter (1974) in that study, the majority of the research done on Parole has been done in California, and as there are major differences in both sentencing and granting of Parole from those of Canada, it is felt those results are not directly applicable to the Canadian situation. Waller (1974) does review some of the American studies, Grant and Grant (1959), and Hood and Sparks (1970) who studied the effects of differential treatment, Robinson and Smith

(1971) who investigated variations in penal treatments, and Havel and Sulka (1962) who examined the effects of varying the parole officer's caseload, to name a few. While differing types of treatment are referred to, the majority appear to involve the "casework" approach, based on the medical model of man. ("Medical model" is referred to here in the psychotherapeutic sense, whereby the deviant behaviour would be assumed to be a symptom, having an underlying internal cause or causes. In the medical model, the underlying cause must be treated to alter the behaviour. Treatment involves having the individual obtain insight into the underlying cause for the behaviour. In a learning-theory or contingency management model, on the other hand, the symptom is the problem and is dealt with directly). As previously indicated, Waller (1974) believes that neither prison nor Parole appear to be particularly efficacious in reducing the likelihood of further criminal behaviour on the part of an individual. He also expresses the opinion that treatment reorientations will not likely produce any dramatic effects. The Correctional Service of Canada's new Case Management Policy and Procedures Manual is in fact an attempt to introduce a major reorientation in how offenders are treated. It will be interesting to see the results, in light of Waller's (1974) comments. From Waller's (1974) study, while it would appear that he is not necessarily a proponent of the alternative approach that will be examined in this study, many of his suggested changes concern themselves with either the client's behaviour, or the manipulation of the environment.

In the literature pertaining to the other approach which will be explored in this study (i.e., a learning-theory approach), its use, while not new in corrections, has been primarily with juvenile offenders

(e.g., Basset, Blanchard, Harrison and Wood, 1974; McLaughlin, 1971). A review of the literature in this regard by Gendreau and Ross (1979) is worthy of note. They cite a number of studies dealing primarily with juveniles that have had apparently excellent success, some of these studies having been carried out in the community.

Current Approach in Parole: Procedures and Assumptions

Parole in Canada came into being with the passing of a Bill entitled, "An Act to provide for the Conditional Liberation of Convicts", in 1899. Under this Act, the Governor General was empowered to grant conditional releases (National Parole Board booklet, The National Parole Board, undated). Parole as we know it today actually came into being with the passing of the "Parole Act", proclaimed on February 15, 1959, which transferred the power to an independent Board to grant conditional releases (National Parole Board booklet, The National Parole Board, undated). While there have been some changes in the Act since 1959, these have not basically altered either the selection procedure for Parole, or the process of Parole supervision.

In the selection procedure, the inmate makes a written application for parole to the Board. This initiates an investigation which is undertaken by employees of the Correctional Service of Canada, (formerly called the National Parole Service). Information is gathered by a Parole officer in the community to which the inmate wishes to return. Opinions are solicited from friends, relatives, police, psychiatrists, and any others who are relevant in the inmate's release plan. A comprehensive report with a recommendation to the Board is then prepared by the Case Management Team, which is composed of institutional

personnel as well as a Parole officer, who represents the community side.[1] It should be noted at this point that the sole criteria for parole eligibility is that a certain portion of the sentence has been served in prison (see Table 1, Eligibility Table for Parole). If a parole is granted, the inmate receives a Parole Certificate (see Appendix A), and in due course is discharged into the community, where he will be under the supervision of a Parole officer for the remainder of his sentence.

During the course of supervision, the parolee is expected to abide by the conditions specified in the Parole Certificate, and generally to attempt to establish himself as a law-abiding member of the community. The Parole officer is expected to assist the parolee in this process, and to protect the community by enforcing the conditions in the Parole Certificate.

The Parole officer's primary tools are the interview and the threat of Parole suspension. The process of Parole supervision revolves primarily around the interview. The parolee is expected to meet with the Parole officer at such times and places as are designated by the latter. Indeed, a minimum number of interviews is specified in the Case Management Policy and Procedures Manual (1980) of the Correctional Service of Canada, as a requirement for the Parole officer with each of his cases. During the interviews, the parolee is expected to

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[1] The "Case Management Team" concept is a result of the new Case Management Policy and Procedures Manual for the Correctional Service of Canada, which was mentioned in the original M.A. Thesis Proposal.

TABLE I

PAROLE ELIGIBILITY

(PED refers to Parole Eligibility Date)

<table>
<tr><th rowspan="2">Length of Sentence</th><th colspan="2">Time to Be Served Before Eligibility</th></tr>
<tr><th>Day Parole</th><th>Full Parole</th></tr>
<tr><td>0 to 2 years less a day</td><td>1/2 time before PED</td><td>1/3 of sentence</td></tr>
<tr><td>2 to 5 years</td><td rowspan="4">For 2 to 12 year sentences, 6 mos. or 1/2 time to PED whichever is longer.

For sentences of 12 years or more as a maximum punishment 2 years before PED</td><td rowspan="2">1/3 of sentence or 7 years whichever is less</td></tr>
<tr><td>5 to 10 years</td></tr>
<tr><td>10 years to life as a maximum punishment</td></tr>
<tr><td>5 years or more when violent conduct (described in Parole Act and Regulations) is involved</td><td>1/2 of sentence or 7 years whichever is less</td></tr>
<tr><td>Life as a maximum punishment</td><td>5 years</td><td>7 years</td></tr>
<tr><td>Preventive detention (as a habitual or dangerous sexual offender</td><td>1 year</td><td>1 year</td></tr>
<tr><td>Detention for an indeterminate period (since Oct. 15/77 as a dangerous offender)</td><td>3 years</td><td>3 years (covering time in custody)</td></tr>
</table>

Continued

TABLE I CONTINUED

Length of Sentence	Time to Be Served Before Eligibility	
	Day Parole	Full Parole
Life for murder before Jan. 4/68	3 years before PED	7 years
Life for murder, Jan. 4/68 to Jan. 1/74		10 years
Life: death commuted before Jan. 1/74		
Life for murder Jan. 1/74 to July 26/76		10-20 years; Judicial Review possible at 15 years
Life: death commuted, Jan. 1/74 to July 26/76		
Life: death not commuted by July 26/76		25 years; Judicial Review possible at 15 years
Life for 1st degree murder on or after July 26/76		
Life for 2nd degree murder on or after July 26/76		10-20 years; Judicial review possible at 15 years

Continued

TABLE I CONTINUED

Length of Sentence	Time to Be Served Before Eligibility	
	Day Parole	Full Parole
After revocation	As policy, 6 months or 1/2 time before PED	As policy, eligible after a minimum of 6 mos. and a maximum of 2 years except cases of preventive detention who are eligible after 6 mos. and not later than a year.
After revocation and new sentence	Depends on new sentence	

discuss his problems, personal and otherwise, and to report generally on his progress or lack thereof. As well, the Parole officer in conjunction with the parolee, (or alone if the parolee refuses to participate), are expected to work out an "individual program plan" to deal with "needs" identified in whatever areas. If the Parolee is not cooperating by not complying with Parole conditions, the Parole officer may request a Parole suspension, which means a warrant will be issued for the parolee's arrest. This could result in revocation of Parole by the Board, in which case the parolee would be returned to prison to serve the remainder of his sentence.

Both the selection procedure for Parole, and the Parole supervision process appear to be based on the medical model of man, with its assumption of "underlying internal causes" for socially unacceptable behaviour to the downplay of external factors. In support of this contention, a review of a sample of Parole files revealed the following reasons for recommending denial of Parole: tendency to rationalize, history of sex problems, avoidance of responsibility by mental defence mechanisms, superficial cooperation, lack of insight and depth of personality, refusal to take full responsibility, and lack of sincerity. Most of the reasons cited refer to hypothetical internal states which have been inferred from a personal interview with the inmate, along with other reports. The influence of the medical model is further evidenced in the parole supervision process. In the context of the interview, the parolee, in discussing his problems with a Parole officer, is expected to gain insight which, presumably, will result in a change in his behaviour. That behavioural change will result from insight is not

borne out by the facts (Ullmann and Krasner, 1965; Bandura, 1969). Additional evidence of the influence of the medical model is seen in the "Quarterly Supervision Report" prepared by the Parole officer (see Appendix B for Report sub-headings.) Under the first heading, "Supervision, Experience and Progress", the supervisor comments on the parolee's response to supervision. Under this section, comments are generally made about the parolee's "attitude", an inferred internal state, and the criteria for assessing both "attitude" and "response" are vague. Item 7(a), "Supervisor's assessment", may tell more about the orientation of the supervisor than the progress of the parolee, and item 7(b), "Paroled Inmate's View", presumably will reflect on the client's "insight".

Proposed Alternative Approach and Its Assumptions

As an alternative to the present approach to Parole supervision, it is suggested that a Contingency Management approach might have far more to offer in the way of influencing parolee behaviour. It should be noted here that the term "Contingency Management" has gradually entered the literature as a synonym for "Behaviour Modification" (Berman, 1974; Luthans and Kreitner, 1975), and as Contingency Management is felt to be the more precise term, only Contingency Management will be used in this thesis. As well, through literature, movies and media, many have come to identify Behaviour Modification with aversive procedures such as psychosurgery, electroshock, and chemotherapy (Stolz, Wienckowski and Brown, 1975). Because of the negative connotations mentioned, the term "Behaviour Modification" has

been virtually dropped from programs in the prison system (APA Monitor, November, 1975; December, 1975).

Contingency Management approach will refer to all attempts to modify behaviour through the systematic application of learning theory principles, both the principles and the techniques for their application having been derived from research in experimental psychology. The frame of reference and the terms used will be primarily Skinnerian.

There are a number of reasons why a Contingency Management approach to Parole supervision is worthwhile investigating. Of primary importance, it stresses the learned or acquired aspects of behaviour. Predominant in most Contingency Management procedures is the general principle that people are influenced by the consequences of their behaviour, and a basic assumption of this approach is that the current environment has more relevancy in affecting a person's behaviour than does his past experiences. Other identifying characteristics of the Contingency Management approach are as follows: there is a rigid adherence to a systematic experimental approach; variables under investigation must be operationally defined; it is committed to the "law of parsimony"; it has an anti-subjective bias; there is a reliance on Stimulus-Response terms; and finally, the Contingency Management approach attributes considerable importance to the reinforcement process. While the Contingency Management approach could be introduced in both the Parole selection procedure as well as the Parole supervision process, only the latter will be discussed since it is the principal concern of this study.

There are a number of other more general reasons for using a Contingency Management approach which are worthy of elaboration. Such

an approach assumes that the deviant behaviour of the inmate is learned (or learnable), and as such is subject to the principles of learning. Since the inmate was not punished every time he engaged in the deviant behaviour, it is safe to assume that the behaviour was established through partial reinforcement, that a variety of stimuli were encountered during the learning process, and that a number of ways were learned to make the response, all factors which increase response persistance (Logan, 1969). The method being used to eliminate the deviant behaviour is punishment. It is worthwhile to note, here, that psychologists are not in agreement as to the effectiveness of punishment in modifying behaviour. Estes (1944), from his experimental work concluded it was not effective. B. F. Skinner adopted a similar position, preferring the use of positive reinforcement (Carpenter, 1974; McLaughlin, 1971). Luthans and Kreitner (1975) also feel that punishment is ineffective, but the concept of the ineffectiveness of punishment has been challenged by Solomon (1964), whose work has shown a number of conditions under which the use of punishment can have very strong effects. Bandura (1969), in an indepth treatment of the topic of punishment, points out the dangers of making any sweeping judgements about its effectiveness. Logan (1969), in his treatment of the topic, lists a number of generally accepted conditions to be met if punishment is to eliminate a response. And since most of these conditions are not met in sending men to prison, this could readily account for the repeat offender. As an example perhaps the most important point to be considered is that if the punishment is not adequate to eliminate the response, the response will become fixated.

As well, if the aversive stimulus (i.e., the period in prison) has persisted over too long a period, then the inmate will have become habituated to the stimulus, so that it is no longer punishing. While the Parole officer obviously has no control over the length of time an inmate will spend in prison, (i.e., the conditions of punishment), he just as obviously has considerable control over the community situation.

The Parole situation lends itself ideally to a Contingency Management approach. The Parole situation with its restrictions on the parolee's behaviour is already aversive. (If the parolee had already habituated to the punishment of prison, then indeed the Parole situation initially may be even more aversive than prison!) If, as already suggested, the parolee's deviant behaviour has become fixated by inappropriate punishment, then counterconditioning could be used, whereby responses incompatible with the deviant responses would be followed by the removal of an aversive stimulus, i.e., negative reinforcement. The principle of negative reinforcement, as defined by Logan (1969), states "whenever a response is closely followed in time by the reduction in an aversive state, the tendency for that response to occur in the future is increased according to the degree of reduction involved."[2] Many people, including psychologists, confuse the terms "negative reinforcement" and "punishment". To eliminate any confusion, only the

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[2]Logan, F. A. Fundamentals of Learning and Motivation. Dubuque: Wm. C. Crown, 1969, p. 102.

term "reinforcement" will be used for the remainder of this thesis.

In practical terms, for certain specified behaviours, the Parole officer could remove certain of the Parole restrictions. (Parole officers do periodically remove restrictions now, but not in a systematic way, so as to achieve the best performance. As well, the criteria for so doing, for the most part, are not well-defined, and for some, such action may be the result of a "gut" feeling). The behaviour to be performed would be specified in advance, thus removing any arbitrariness from the situation for both the Parole officer and the parolee. While the possibility of punishment would still exist, since punishment is an integral part of the correctional system, both its use and the threat of its use could be minimized. With the Contingency Management approach, the parolee would have the opportunity to earn his way out of Parole, and this clearly defined opportunity to shorten the Parold period should provide the necessary motivation for him to cooperate in such a program. One other possible benefit of the Contingency Management approach is that this approach provides a systematic monitoring of the parolee's behaviour. If the program is not working, the Parole officer is immediately aware and can change the contingencies. The focus of attention would be on the parolee's behaviour, which after all is what brought the parolee before the courts. Finally, in the realm of therapy at least, there are few subjects and few behaviours that will not respond to a Contingency Management approach (Ullman and Krasner, 1965).

Method of Simulation

Two phases of simulation were required in this study. Since

people on Parole are, by definition, released prisoners, serving their sentences under changed conditions, the population of interest is prisoners. Therefore the first phase of the study involved a simulation of prison conditions. This involved placing the subject in a state of deprivation, with some degree of depersonalization, and with a set of aversive rules along with a threat of punishment. The actual procedure is described in Chapter 2. A confederate was used for this part of the experiment, as in the actual parole situation where the guard is not the subject's Parole officer.

In order to simulate the two different approaches to Parole a variation of the experimental game was used. Rapoport (1973) has already demonstrated that games can be used to simulate some real-life situations. The game used to simulate Parole was a non-zero sum game devised by the writer, and was entitled "It's Your Choice". The game was a very simple choice game, played on a panel with a corresponding matrix. While the actual procedure will be gone over in Chapter 2, the features of the game will be highlighted here. For each play or trial, the subject was required to make a choice of a stimulus light on a panel. For choosing the same light, (i.e., cooperating with the experimenter), the subject was assured a certain number of points. However, on each trial he could risk making another choice which could net him a higher point payoff. (If he erred in non-cooperation he could also get no payoff). The feature of cooperation was intended to represent what in essence the Parole officer is attempting to elicit in the actual situation, i.e., the cooperation of the parolee in making choices. By learning to make

cooperative responses in the Parole situation, the parolee is learning cooperative behaviour in general. This cooperative behaviour will facilitate the parolee's readjustment in society. Both the experimenter and the subject earned points in the game in theory. The subject's points were converted to cash at the end of his participation in the study. For cooperation, both the subject and experimenter always received the same number of points. The points for the parolee represented his payoff, i.e., avoidance of punishment from the Parole officer. The higher payoffs for non-cooperation represented the higher reward he might receive in violating Parole conditions, as long as he did not get caught. The points for the experimenter represented, from the parolee's viewpoint, the Parole officer's job satisfaction. The numbers assigned to each block in the five matrices used were arbitrarily assigned. Point values increased successively on each of the five matrices, representing the increased "stake" the parolee would have in the community over time. As well, the higher payoff for non-cooperation was a constant +4 throughout all matrices. This too, was arbitrarily assigned. Fifty percent of the trials on each matrix were randomly programmed to receive punishment for non-cooperation. This represented the possibility of punishment in the actual Parole situation, although the 50% was also arbitrarily assigned. The punishments were of two types; a short sharp burst of white noise symbolizing Parole suspension, and a loss of points, symbolizing the disciplinary interview which might follow. (While the terms "Parole suspension" and "Parole revocation" were mentioned earlier, the differences will be emphasized here for clarification. Parole suspension

is a power of the local Parole office to issue a warrant for the parolee's arrest and detention. Parole revocation is a power of the Parole Board alone, in which the Board orders that the parolee be returned to prison to serve the remainder of his sentence). The game was circumscribed with a set of restrictive rules, representing the rules of parole (see Appendix G). Some of the rules referred to the time for response to the previous rule. This represented the requirement of the parolee, for example, to seek approval in a specified time frame before travelling. For one group the rules were held constant, while for the other group rules were removed for a given number of cooperative responses. The main reinforcement was the removal of the restrictive rules. One final matrix was played with both groups, with all threat of punishment removed. This final matrix was meant to represent conditions after expiry of parole. This last matrix was not considered to be an integral part of the study.

Hypotheses

1. In a Parole situation, where one group is reinforced for cooperative responses by being allowed to delete rules from Parole, that group will give a significantly higher percentage of cooperative responses than another group for whom the rules remain static. The null hypothesis is the converse of the above.

2. When the rules are equalized for both groups, the group previously given reinforcement for cooperative responses by being allowed to delete rules will continue to give a significantly higher percentage of cooperative choices than the group for whom rules were held static. The null hypothesis is the converse of the above.

CHAPTER II

METHOD

Subjects

The subjects were all male student volunteers obtained from a Summer Session student population at the University of Windsor. The age range was limited to subjects between the ages of 20 years and 35 years. It had been intended to restrict the age variable to narrower limits, but this was not possible due to a lack of available volunteers. In actuality, the subjects ranged in age from 20 years to 29 years. The mean age of the subjects in the static rules group was 25.75 years, and in the flexible rules group 24.13 years. Two methods were used to obtain the subjects. In the first method, the experimenter read a prepared statement to a class of students, giving a very general outline of the purpose of the experiment, the amount of money that could be earned for participating, and the amount of time involved. (See Appendix C). In the second method, the experimenter recruited subjects from the Student Center, by means of a sign indicating that interested persons could earn money for participating in a psychological study. Anyone who inquired was read the same prepared statement as had been read to the classes. (See Appendix C). In both cases, subjects who were interested left their names and telephone numbers with the experimenter, and arrangements for testing were concluded later.

While 21 subjects were actually tested, the data for only 16

subjects was included in this study. The data for 5 subjects was excluded for the following reasons. The data for 2 subjects was rejected due to a serious malfunction in the air-conditioning system of the test area, which sent the temperature plummeting downwards. One subject did not complete the study, and another was from a totally different cultural background. The data for the remaining subject was rejected due to the fact that the subject had actual experience with the systems being simulated, and in addition had indulged in intoxicants during a half hour break provided in the study. This information was obtained in the debriefing. During the course of the study, the subjects earned points by playing a game. The points were converted to money at the end of their participation in the study. The maximum it was possible to earn was $14.00 per subject.

Apparatus and Materials

The apparatus on which the game was played was designed and built at the University of Windsor for Murchie's (1975) M.A. thesis, and was modified for the purposes of this study. The equipment consisted of two almost identical inter-connected panels, measuring 12 in. x 18 in., one for the experimenter and the other for the subject. (See Figures 1 and 2). Each panel had an orange light located near the top, center. On the experimenter's panel, a switch was located just under the light. Along each side of each panel was a vertical row of three lights, those on the right being yellow, and on the left, red. A switch was located midway between each pair of red and yellow lights. On the right side of the panel, about midway between the top and center lights, and to the right of the vertical row, was a clear white light

with a switch just below it. Between the center and bottom light, and directly in line with the clear white light, was a clouded white light. This latter light was on the experimenter's panel only. In the same position on the subject's panel, instead of a light there was a switch. Both panels were labelled as follows. (See Figures 1 & 2). At the top, just above the orange light was the game title, "ITS YOUR CHOICE". The orange light was labelled "START". Along the left side, and to the left of each red light, was the label "TOP", "CENTER", or "BOTTOM", in accordance with the light position on the panel. On the right side, just above the clear white light, was the word "COMMUNICATE". On the experimenter's panel, the clouded white light was labelled "CANCEL", and on the subject's panel, the switch occupying the same position was also labelled "CANCEL". On the subject's panel, both the "COMMUNICATE" light switch and the "CANCEL" switch also had the "ON/OFF" positions labelled. On the experimenter's panel, the vertical row of yellow lights was labelled at the top, "I SUGGEST", and the vertical row of red lights "HE CHOOSES". On the subject's panel, these same rows were respectively labelled "HE SUGGESTS" and "I CHOOSE". The switch below the orange "START" light on the experimenter's panel controlled that light on both panels. Either panel could control the "COMMUNICATE" light with the appropriate switch, and the "CANCEL" light on the experimenter's panel was controlled by the "CANCEL" switch on the subject's panel. The yellow lights on both panels were controlled by the experimenter, and the red lights by the subject, both by the center row of switches.

The five payoff matrices by which the game was played were devised by the experimenter. (See Figures 3 to 7). Each matrix was printed on a white

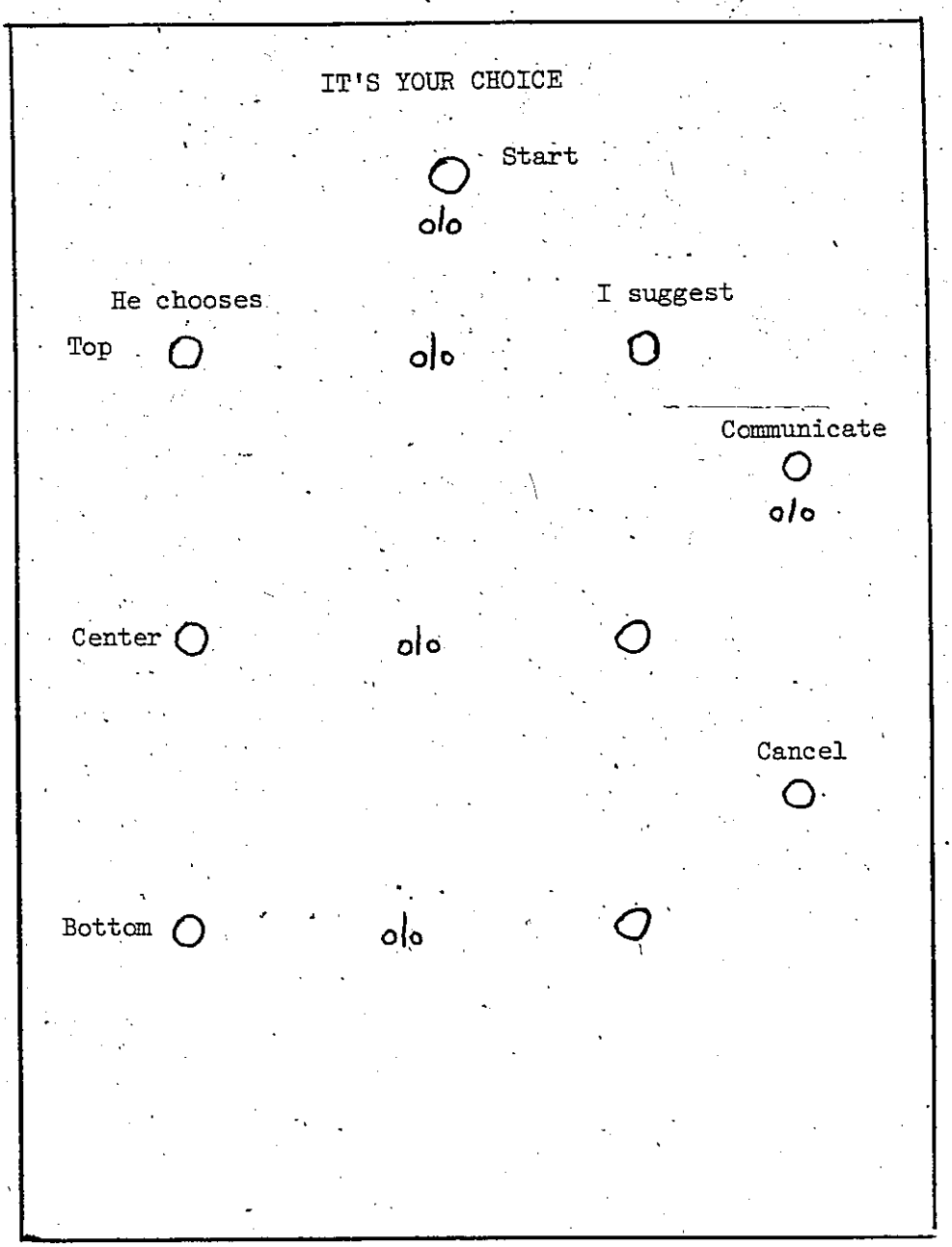

FIGURE 1. Diagram of Experimenter's Panel

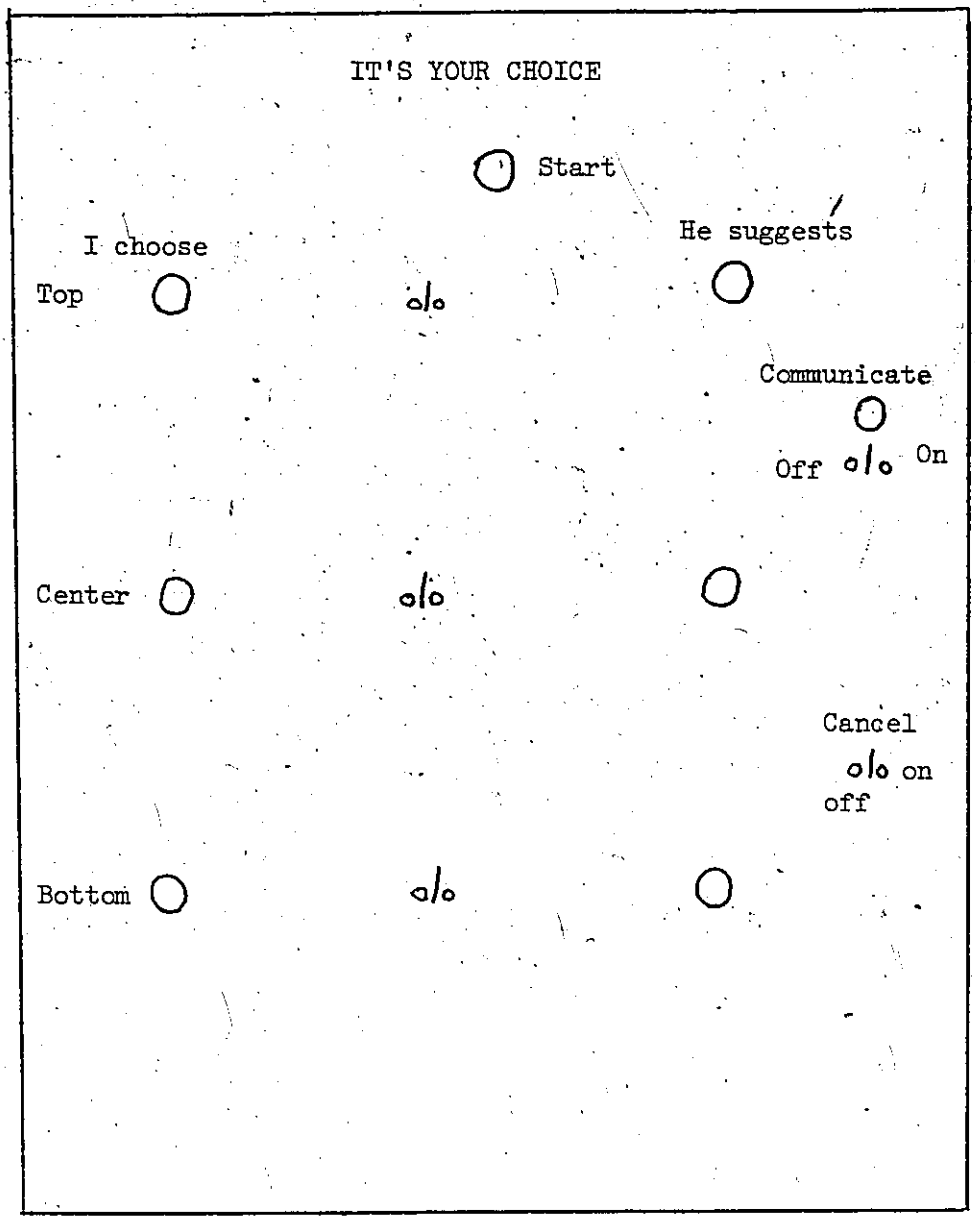

FIGURE 2. Diagram of Subject's Panel

IT'S YOUR CHOICE

	TOP	CENTER	BOTTOM
TOP	SUBJ. 3 EXP. 3	SUBJ. 7 EXP. 0	SUBJ. 0 EXP. 7
CENTER	SUBJ. 6 EXP. 0	SUBJ. 2 EXP. 2	SUBJ. 0 EXP. 6
BOTTOM	SUBJ. -2 EXP. 0	SUBJ. -4 EXP. 0	SUBJ, -6 EXP. 0

FIGURE 3. Payoff Matrix #1

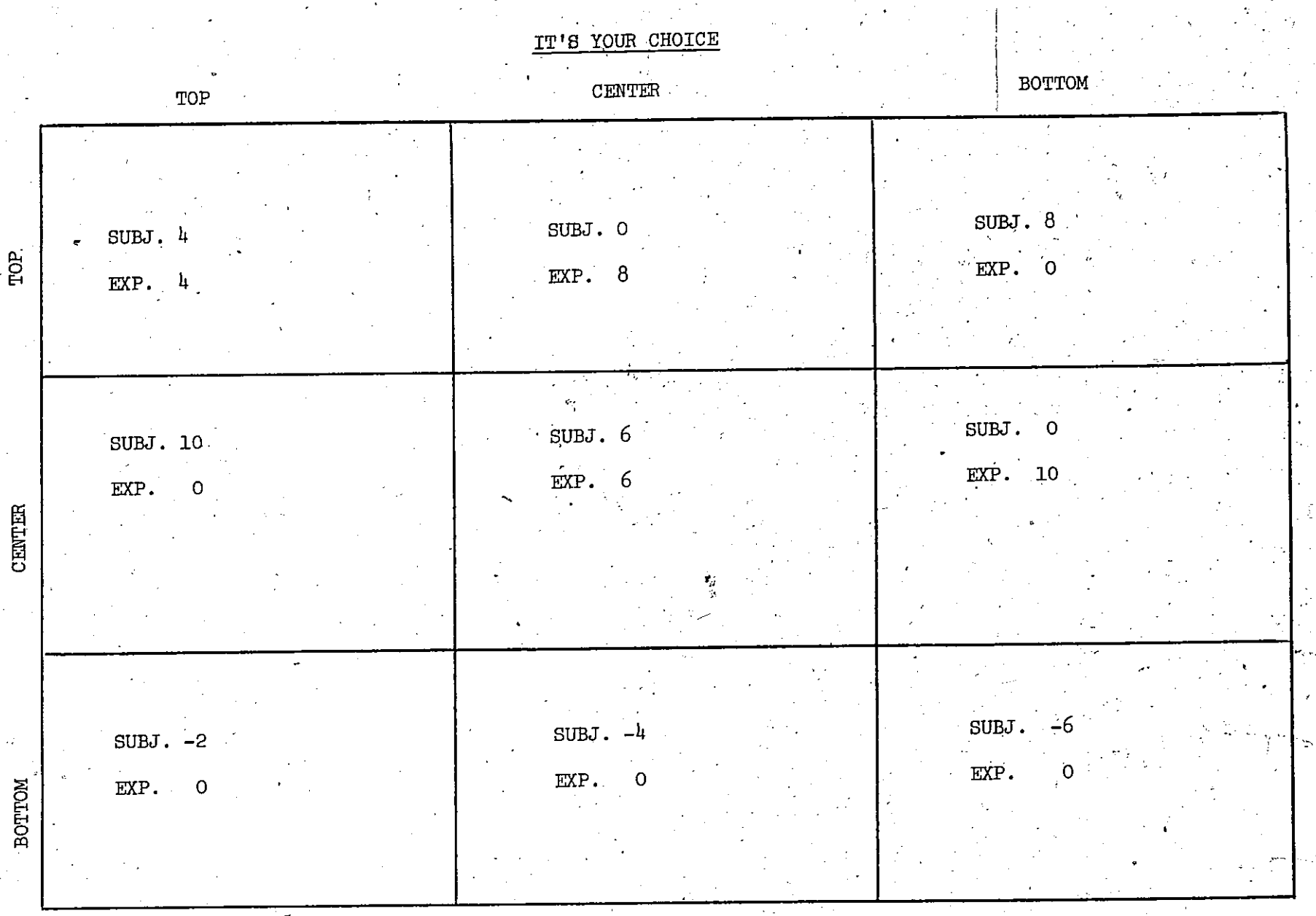

FIGURE 4. Payoff Matrix #2

IT'S YOUR CHOICE

	TOP	CENTER	BOTTOM
TOP	SUBJ. 10 EPX. 10	SUBJ. 14 EXP. 0	SUBJ. 0 EXP. 14
CENTER	SUBJ. 0 EXP. 11	SUBJ. 7 EXP. 7	SUBJ. 11 EXP. 0
BOTTOM	SUBJ. -2 EXP. 0	SUBJ. -4 EXP. 0	SUBJ. -6 EXP. 0

FIGURE 5. Payoff Matrix #3

ITS'S YOUR CHOICE

	TOP	CENTER	BOTTOM
TOP	SUBJ. 11 EXP. 11	SUBJ. 0 EXP. 15	SUBJ. 15 EXP. 0
CENTER	SUBJ. 19 EXP. 0	SUBJ. 15 EXP. 15	SUBJ. 0 EXP. 19
BOTTOM	SUBJ. -2 EXP. 0	SUBJ. -4 EXP. 0	SUBJ. -6 EXP. 0

FIGURE 6. Payoff Matrix #4

IT'S YOUR CHOICE

	TOP	CENTER	BOTTOM
TOP	SUBJ. 15 EXP. 15	SUBJ. 0 EXP. 19	SUBJ. 19 EXP. 0
CENTER	SUBJ. 14 EXP. 0	SUBJ. 10 EXP. 10	SUBJ. 0 EXP. 14
BOTTOM	SUBJ. 0 EXP. 24	SUBJ. 24 EXP. 0	SUBJ. 20 EXP. 20

FIGURE 7. Payoff Matrix #5

card measuring 11 inches x 8 inches. Each matrix was made up of 3 horizontal rows representing the experimenter, and 3 vertical columns representing the subject. Each cell of each matrix contained 2 payoff scores, one for the experimenter and one for the subject. In matrices 1 through 4, the left cell in the top row, and the center cell in the center row contained equal payoffs for both the subject and the experimenter. One cell in each of these rows contained an extra 4 points for the subject and zero points for the experimenter, while the remaining cell in each row contained an extra 4 points for the experimenter and zero points for the subject. The position of the extra 4 point cells on each row was reversed on each succeeding matrix to control for position responding. In matrices 1 through 4, all cells of the bottom row contained only zero points for the experimenter and negative payoffs for the subject. Both the amounts of the cell payoff of the bottom row as well as their positions remained constant throughout the first 4 matrices. The construction of payoff matrix 5 was similar to the other 4 matrices, with the exception that this final matrix contained no negative payoff cells. Instead of negative payoff cells, the bottom row contained one equal payoff cell for both the subject and the experimenter, one cell with an extra 4 points for the subject and zero points for the experimenter, and one cell with an extra 4 points for the experimenter and zero points for the subject. The point spread between the two equal payoff cells in the first matrix was 1 (i.e., 2 and 3), in the second matrix, 2, (i.e., 4 and 6), and increased by 1 point in each succeeding matrix up to 5 points in the fifth matrix, (i.e., 10, 15 and 20). The numbers 2 and 3 for the equal

payoff cells of the first matrix were arbitrary decisions of the experimenter. For each succeeding matrix, 1 point was added to the highest equal payoff cell of the preceding matrix, and the new number became the lowest equal payoff cell for that matrix. Thus by adding 1 point to the highest equal payoff cell of matrix 1, (i.e., 3 + 1), 4 was the lowest equal payoff cell of matrix 2. This procedure was followed for the first 4 matrices only, and was also an arbitrary decision of the experimenter. On all 5 matrices, the maximum number of extra points that could be earned by the subject on any given trial for not choosing the same light as the experimenter was 4 points. This difference of 4 points was also an arbitrary decision of the experimenter, as well as the lowest equal cell payoff of matrix 5.

All matrix cards were labelled as follows, (See Figures 3 to 7), to correspond with the panel. At the top of the card in green ink was the game title, "IT'S YOUR CHOICE". At the bottom of the card, also in green ink, were the words "MATRIX # ", and the appropriate number. The matrix was centered on the card with a 1 in. margin all around. Over the cells of the top row of the matrix, from left to right, were the words "TOP", "CENTER", and "BOTTOM", respectively, in red ink. Down the left side of the matrix, from top to bottom, the 3 cells were respectively labelled "TOP", "CENTER", and "BOTTOM", in black ink. Within each cell in red ink was the word "SUBJ.", with a number immediately following. Just underneath in black ink was the word "EXP" with a number immediately following. The word and number pairs were located relatively close together, and were centered in each cell. Red ink was used for matters pertaining to the subject on the matrix to

assist the subject in relating the numbers on the matrix to his red choice lights on the panel.

To produce the "unpleasant buzzer" effect used in the game, a white noise tape was played on a stereo tape recorder, Model TC-270, made by Sony of Japan. The white noise was recorded from a white noise generator, and was reproduced at approximately 95 db, in bursts lasting approximately 1/3 sec.

Communication between the subject and the experimenter during the parole simulation was by battery operated telephones. All responses which required timing were timed with a standard stop clock, Model 54014, ser. 108660, manufactured by the Lafayette Instrument Co. of Lafayette Ind., U.S.A. The stop clock was accurate to 1/100 sec.

Four rooms were used in running this study, 2 for the prison simulation, and 2 for the parole simulation. The 4 rooms were adjacent to one another (see Figure 8), and were relatively soundproof, and the entire area was air-conditioned. The 2 adjacent rooms used in the prison simulation, (Rooms "A" and "B" in Figure 8), measured 10 1/2 ft. x 6 ft. x 8 1/2 ft. high, and were separated by a door containing a clear glass window. Room "A" also had a door with a clear glass window, opening to the hallway. With the exception of the 2 windowed doors, all rooms were windowless. There was a door between Room "B" and a technical equipment room, (Room "E" in Figure 8). Room "A" bore the designation "RECEPTION AREA" in black lettering, and Room "B" was labelled "ISOLATION UNIT". The window to the door of the isolation unit was covered in black paper, except for a small opening in the center. The reception area contained a desk and 3 chairs and the isolation unit contained only a chair. The interior of the reception area was a pale

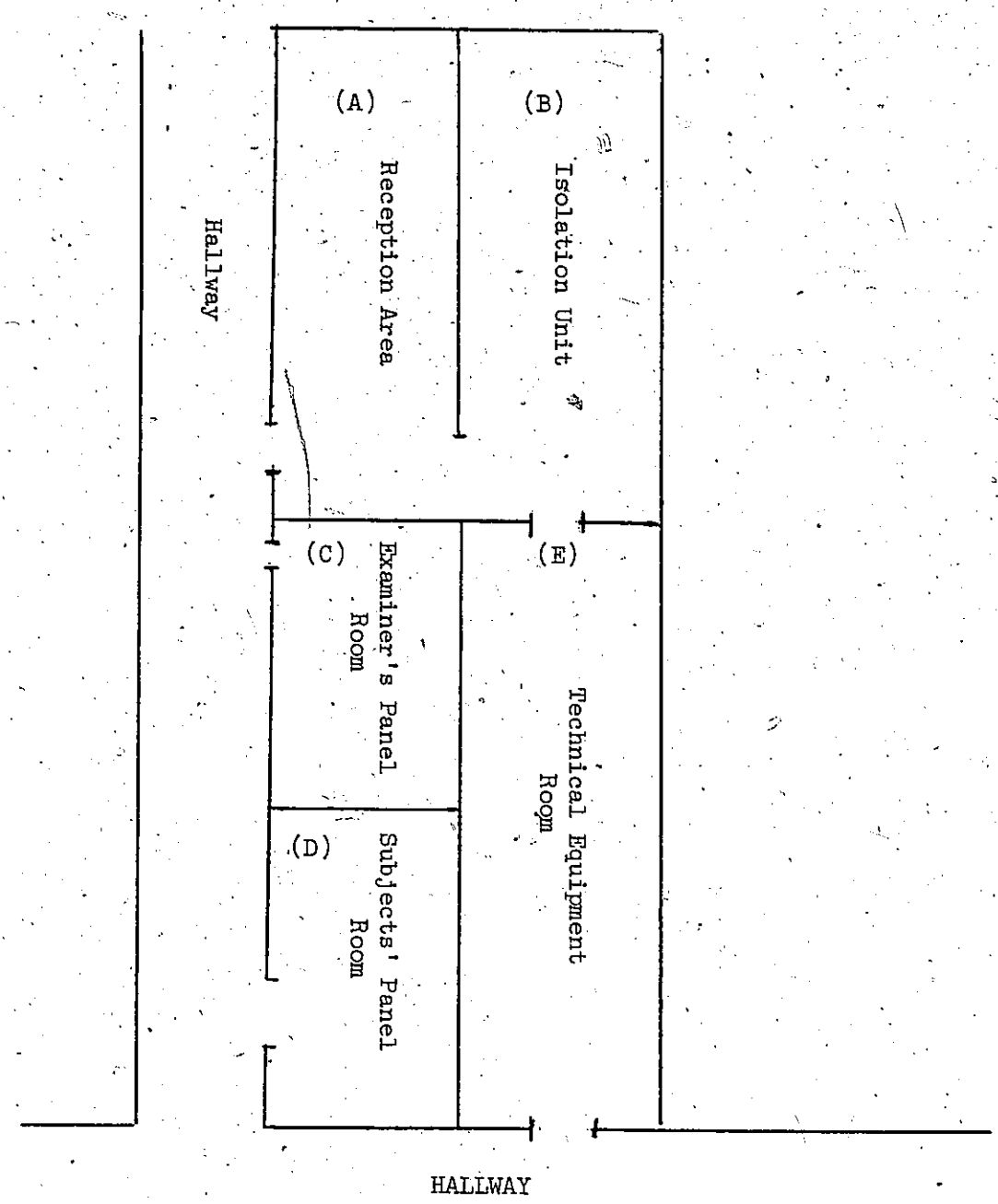

FIGURE 8. Physical Layout of the Experimental Area

blue in colour, while that of the isolation unit was peach coloured. The 2 rooms used in the parole simulation were adjacent to each other (Rooms "C" and "D" in Figure 8), and were slightly smaller, measuring 7 ft. x 4 ft. x 8 1/2 ft. high. Both rooms were pale blue in colour, and each room had only one solid door opening to the hallway. Each room contained a game panel, a small table, and a telephone. In addition, the experimenter's room contained a stop clock and a tape recorder. The subject's room contained the 2 speakers from the tape recorder in the experimenter's room. The lighting in all rooms was standard fluorescent lighting.

Experimental Design

The experimental design was a 2 x 2 x 4 factorial with repeated measures on the last factor. The independent variables were number of replications, method of treatment (static rules versus flexible rules), and the 4 matrices. The dependent variable was percentage of cooperative responses. The procedure used was to replicate the experiment using a minimum of 4 subjects per cell, with the intent of continuing until either a significant trend in the data was noted, or some other trend identified. The static rules group was the control group in this study, while the flexible rules group was the experimental group. Both groups were first subjected to the prison simulation, and thus represented samples drawn from a prison population. The flexible rules group was the group which received the experimental treatment. The situation was considered to be analogous to medical experiments where 2 sample groups are drawn from a sick population, and only one group receives an experimental drug. In such studies, there is no

control group drawn from the population who are not sick. In the same way, it was not considered appropriate to have a control group drawn from a non-prisoner population.

Procedure

Phase I. The purpose of this phase was to simulate some aspects of the prison environment. On arrival at the experimental site, each subject reported to the reception area, where he was greeted by a confederate of the experimenter. A confederate was used in this phase to control for the possibility of negative feelings generated by the procedure being projected directly unto the experimenter. The subject was read a brief statement as to the purpose of the experiment, (see Appendix D for actual wording), and was then asked to sign a statement indicating his willingness to participate in the study, (see Appendix E), and setting out conditions of payment. The bottom portion of the statement was a receipt which was completed at the termination of each subject's participation in the study. After the subject signed the statement, his watch was removed. If he did not have a watch, then pens or pencils were removed. The purpose of this procedure was to simulate the removal of personal belongings which occurs on admission to prison. Each subject was then assigned the number "705", which was printed on a 4 in. x 6 in. white card and affixed to the front of the subject's clothing. From then on, for the duration of Phase I, in any communication the subject was addressed by number only. A set of restrictive rules regulating the subject's behaviour for the prison simulation was then read out and posted on the wall. (See Appendix F). For violating any of the rules, the subject was threatened with an

unspecified period of time in the "ISOLATION UNIT". The subject was then told to be seated. Two chairs were available to the subject, and after he had selected one of them, he was immediately told to sit in the other one. No task was assigned the subject during this phase. For the remainder of the period, the confederate sat behind his desk reading a book, and almost totally ignored the subject. The confederate did glance up periodically to see if the subject required anything. This phase continued for 1 1/2 hours. At the end of that time, the subject's number was removed and his watch (or other item) returned. He was informed that the prison simulation was over, that he could now leave the room, and that he was to report back to the experimenter in 1/2 hour. He was also instructed not to indulge in either alcohol or drugs during his 1/2 hour break. This signified the end of Phase I, and thereafter the subject was addressed by name only.

The purpose of the procedures followed in the prison simulation was to generate in the subject some feelings of depersonalization, resentment and hostility, such as are part of the process of imprisonment.

Phase II. After completion of Phase I, each subject was randomly assigned to either the static rules group or the flexible rules (i.e., Contingency Management) group. (See Appendix G for rules). Upon reporting back to the experimenter, he was read the prepared statement for his respective group. (See Appendices H and I). Each subject was then run for 100 trials on each matrix. While all subjects were aware of the possibility of punishment for non-cooperation, they were not aware that 50% of the trials on each matrix had been randomly assigned punishment for non-cooperation. (See Appendix J).

For the static rules group, the rules were held static throughout. For the flexible rules (Contingency Management) group, for every 50 consecutive cooperative responses they made, they were permitted to delete one of the written rules of their own choosing. All subjects were given a further 100 trials on the 5th matrix with all threat of punishment removed. After each subject completed the last matrix, he was given a debriefing and asked not to discuss the experiment with anyone until the experiment was completed. Each subject was also offered an apology for any distress or discomfort he experienced during his participation.

Each trial proceeded as follows. The experimenter switched on the orange "START" light. The subject pressed the "CANCEL" switch. The experimenter turned off the orange light, and then turned on a yellow light. The subject responded by turning on a red light. Both the subject and the experimenter recorded the subject's score. The experimenter then switched off the yellow light. The subject switched off the red light and the trial was complete.

CHAPTER III

RESULTS

After the second replication, and taking into consideration the first 4 matrices only, the mean percentage of cooperative responses for the static rules group was 68.93, while the mean percentage of cooperative responses for the flexible rules group (i.e., Contingency Management), was 91.5. (See Appendix L for raw data). An analysis of variance was performed on this data, and a significant effect for the Contingency Management approach was reached ($F = 16.366$, $df = 1/12$, $p < .005$). (See Table 2, Analysis of Variance). There was no significant effect for the manipulation of the matrices, nor for the replications. The only significant effect was for the Contingency Management approach. Consequently, the results support fhe first hypothesis. In a Parole situation, reinforcing parolees by allowing them to delete rules from Parole for cooperating with their supervisor appears to be an effective way of significantly increasing their level of cooperation.

The results for the fifth matrix were tabulated separately. (See Appendix L for raw data). The mean percentage of cooperative responses for the static rules group was 49.25, while the mean percentage of cooperative responses for the flexible rules group, (i.e., Contingency Management), was 62.5. A between groups t-test was used to analyze the data for this fifth matrix, but the differences were not

TABLE 2

ANALYSIS OF VARIANCE OF PERCENTAGE OF COOPERATIVE RESPONSES

Source	Ss	df	MS	F
Between Ss	14,363.61	15		
A (Replications)	78.76	1	78.76	0.159
B (Method of Treatment)	8,122.51	1	8,122.51	16.366*
AB	206.65	1	206.65	0.416
Ss Within Groups (error)	5,955.69	12	496.31	
Within Ss	19,138.75	48		
C (Matrices)	1,727.92	3	575.97	1.560
AC	1,540.30	3	513.43	1.391
BC	1,653.05	3	551.02	1.493
ABC	928.42	3	309.47	0.838
C x Ss Within Group (error)	13,289.06	36	369.14	

$p < .005$

found to be significant, and the second hypothesis is therefore not supported. Since the fifth matrix was meant to represent conditions after expiry of Parole, it would appear that the treatment was only effective while Parole conditions were in effect. It is quite possible that the experimental design pertaining to this fifth matrix was not sufficiently powerful to highlight any differences that might occur. On the fifth matrix, all threat of punishment was removed, and this was perhaps not a realistic simulation of real life experience.

A brief mention should be made here of the results of the debriefing. The majority of the comments from the subjects revolved around the prison simulation, which, from the point of view of the subjects, was quite successful. All subjects reported feelings of resentment and hostility towards the confederate. They felt the "rules" in the prison simulation were quite oppressive. Many reported a loss of orientation with respect to time. With respect to the passing of time, a few reported counting the cement blocks in the walls, then, to their own surprise, "thinking nasty things" about the confederate. They also expressed a sense of satisfaction that he did not know what they were thinking. All subjects reported a fear of the "Isolation Unit". All expressed indignation at being addressed by a number rather than by name. Few subjects asked questions about the Parole system, although some noted that violating the conditions was costly. Most subjects believed a decision was being made when punishment was applied. It is interesting to note that despite the negative feelings expressed about the prison simulation, no subjects withdrew from that part of the study.

CHAPTER V

DISCUSSION

In Waller's (1974) study of the Parole system in Canada, he concluded that the traditional approach to Parole was not particularly effective in reducing recidivism. As an alternative to the traditional approach, a Contingency Management approach, based on learning theory, appeared worthy of investigation. This investigation was conducted by means of a simulation. In fact, since persons on parole are, by definition, released prisoners who continue serving their sentences under changed conditions, the study required 2 simulations. The first was a simulation of prison conditions, and the second was a simulation of parole conditions. A simulation demands that there be common elements between the simulation and the real life situation, and these were included in this study. As an example, during the prison simulation, the subjects were faced with a set of restrictive rules, governing all aspects of their behaviour, with prescribed punishments for a violation of the rules. The negative feelings reported by the subjects were specifically what was intended by the prison simulation. For the Parole simulation, a game was used. There were restrictive rules surrounding the game, a loss of points for a violation of the rules, as well as other punishments. In the real life situation, the parolee's behaviour is governed by a set of restrictive rules, with punishments for violating the rules. During the course of the game the experimenter was attempting to obtain the cooperation of the subjects in choosing stimulus lights on a panel. The feature of cooperation was

felt to be particularly important, since this is in essence what the Parole officer is attempting to elicit from the parolee, i.e., cooperation in making choices. If the parolee learns cooperative behaviour in the Parole situation, this should carry over into other situations and assist the parolee in his readjustment to society. After each subject completed the prison simulation, he was randomly assigned to either the traditional Parole group or the Contingency Management group. For the traditional Parole group, the rules were held constant throughout. For the experimental group (Contingency Management), for every 50 consecutive cooperative responses the subjects made, they could delete a game rule. The Contingency Management group gave a significantly greater number of cooperative responses than did the traditional Parole group. The Contingency Management approach was more effective in producing cooperative responses than was the traditional approach.

It is important to note that Contingency Management approaches generally begin with a neutral situation, and move towards a positive one. In the present study, the situation was of necessity designed to be aversive, as it was a simulation of the Parole situation. The major reinforcement offered to the subjects was the removal of restrictive rules in return for cooperative choices. While one must be careful in drawing conclusions, the Contingency Management approach worked in this study in developing cooperative responses in the subjects. To the extent that the Contingency Management approach worked, it deserves further attention.

Despite the significant results achieved in this study by using a Contingency Management approach, it does not follow that a Contingency

Management approach should be employed in Parole without conducting further studies. The next logical step would be to conduct feasibility studies, both by simulation, as well as in the actual Parole situation. There are those who would challenge any experimentation in the actual Parole situation as being unethical. On the contrary, to blindly continue the traditional approach to Parole, given Waller's (1974) findings, would, in the opinion of this writer, constitute unethical behaviour. This is especially so when other approaches to Parole, such as a Contingency Management approach, might be far more powerful in producing positive changes in parolee behaviour. One must also bear in mind that contingencies are continuously in operation, shaping and changing the parolee's behaviour, and it would seem ludicrous indeed not to take advantage of this natural state of affairs on the pretext that to do so would be "unethical". To satisfy the concerns of those who would raise questions as to what behaviours should be worked on, an approach such as that suggested by Kittrie (1971) could be utilized to determine when an intervention should take place. The type of intervention to be used could also be approved and monitored by an independent "ethics committee". Given the foregoing, experimentation in the Parole situation is not only ethical, such experimentation is essential if we are to advance Parole supervision techniques to the point where they are truly effective in reducing recidivism amongst persons on Parole.

The present study was but a beginning. The Contingency Management approach to Parole was more effective than the traditional approach in obtaining cooperative responses from the subjects. The major reinforce-

ment used to obtain these results was the removal of restrictive conditions. Further studies are obviously required before any firm conclusions can be drawn. However, given sufficient experimental data, an operations research approach could be utilized. The essence of such an approach is that the researchers attempt to calculate outcomes and find algorithms, i.e., sequences of calculations. The operations research approach could quite conceivably lead to the development of a "Parole officer's handbook", indicating possible strategies for dealing with specific behaviour problems presented by the parolees. While we are a long way from developing such a "handbook" at present, the methodology exists for such an accomplishment. We have only to take advantage of this methodology.

APPENDIX A

PAROLE CERTIFICATE

0999

CONDITIONS OF PAROLE
CONDITIONS DE LA LIBÉRATION CONDITIONNELLE

The parolee shall abide by the conditions of his parole and all instructions which may be given by his supervisor from time to time:
Le libéré conditionnel doit se conformer aux conditions de sa libération et à toutes les directives que lui donne à l'occasion son surveillant:
and shall abide by the special condition:
et il doit se conformer à cette condition spéciale:

PAROLE CERTIFICATE
CERTIFICAT DE LIBÉRATION CONDITIONNELLE
FPS-SZD

NATIONAL PAROLE BOARD
COMMISSION NATIONALE DES LIBÉRATIONS CONDITIONNELLES

Parole Act — Loi sur la libération conditionnelle de détenus
S.R.C. 1970 c. P-2

This is to certify that
Le présent certificat atteste qu'il
who was serving a term of imprisonment in
qui purgeait une sentence d'emprisonnement à
was granted
a été accordé une libération
parole effective on
conditionnelle commençant le
Provided parole is not suspended, revoked or terminated,
A condition que cette libération conditionnelle ne soit pas suspendue,
it will expire on
révoquée ou terminée, elle prendra fin le

Date | Signature - Parolee / Libéré | Issued on — Délivré le | Approver — Greffier

INSTRUCTIONS

Pursuant to the conditions of your parole you must obey these instructions. Failure to do so may result in suspension and revocation of parole.
En conformité avec les conditions de votre libération, ces instructions doivent être suivies. Tout manquement peut amener la suspension et la révocation du certificat.

You must proceed directly to
Vous devez vous rendre directement à .....
and report to your Parole Supervisor
et vous rapporter à votre surveillant .....
At
à .....

Director — Directeur

Parole Supervisor — Surveillant

ACKNOWLEDGEMENT — *RECONNAISSANCE*

I understand that the parole certificate is the property of the National Parole Board and must be delivered on demand of the National Parole Board or of my supervisor. I also understand that I am still serving my term of imprisonment and that parole has been granted to allow me to resume my activities as a citizen at large in the community under supervision.

I fully understand and accept all the conditions (including the conditions printed overleaf), regulations and restrictions governing my release on parole. I will abide by and conform to them strictly. I also understand that if I violate them I may be recommitted.

Je comprends que le certificat de libération conditionnelle appartient à la Commission nationale des libérations conditionnelles et doit être retourné sur demande de la Commission nationale des libérations conditionnelles ou de mon surveillant. Je comprends aussi que je continue de purger ma sentence mais que je suis libéré conditionnellement et sous surveillance afin de me permettre de poursuivre dans la société mes activités de citoyen.

Je comprends parfaitement et j'accepte toutes les conditions (y compris les conditions imprimées au verso), les règles et les restrictions auxquelles est assujettie ma libération conditionnelle. Je m'y conformerai complètement. Je comprends également que si je ne les respecte pas, je puis être réincarcéré.

Certificate Dated *Date du certificat*	Released on — *Date libéré*	Paroled Inmate — *Libéré*
		Witness — *Témoin* / Date

REPORTS TO POLICE – *RAPPORTS À LA POLICE*						VISITS TO SUPERVISOR – *VISITES AU SURVEILLANT*					
Initials *Initiales*	Date	Initials *Initiales*	Date	Initials *Initiales*	Date	Initials *Initiales*	Date	Initials *Initiales*	Date	Initials *Initiales*	Date

CONDITIONS OF PAROLE

1. To remain until expiry of sentence under the authority of the designated Representative of the National Parole Board.
2. To proceed forthwith directly to the area as designated in the Instructions and, immediately upon arrival report to the Parole Supervisor and after to the Police as instructed by the Supervisor.
3. To remain in the immediate designated area and not to leave this area without obtaining permission beforehand from the Representative of the National Parole Board, through the Parole Supervisor.
4. To endeavour to maintain steady employment and to report at once to the Parole Supervisor any change or termination of employment or any other change of circumstances such as accident or illness.
5. To obtain approval from the Representative of the National Parole Board, through the Parole Supervisor before:
   (a) purchasing of motor vehicle
   (b) incurring debts by borrowing money or instalment buying;
   (c) assuming additional responsibilities, such as marrying;
   (d) owning or carrying fire-arms or other weapons.
6. To communicate forthwith with the Parole Supervisor or the Representative of the National Parole Board if arrested or questioned by police regarding any offence.
7. To obey the law and fulfill all legal and social responsibilities.

CONDITIONS DE LA LIBÉRATION CONDITIONNELLE

1. *Demeurer jusqu'à l'expiration de la sentence sous l'autorité du représentant désigné par la Commission nationale des libérations conditionnelles.*
2. *Se rendre directement et immédiatement à l'endroit spécifié dans les instructions et dès l'arrivée se rapporter au Surveillant et ensuite à la police selon les instructions du Surveillant.*
3. *Demeurer dans les environs immédiats tel que désigné et ne pas quitter ce territoire avant d'obtenir au préalable, par l'entremise du Surveillant, la permission du représentant de la Commission nationale des libérations conditionnelles.*
4. *S'efforcer de travailler régulièrement et faire part immédiatement au surveillant de tout changement ou cessation d'emploi ou tout autre changement de circonstances comme un accident ou la maladie.*
5. *Obtenir au préalable l'autorisation du représentant de la Commission nationale des libérations conditionnelles par l'entremise du surveillant avant de:*
   (a) faire l'achat d'une automobile;
   (b) contracter des dettes par emprunt d'argent ou par achat à tempérament;
   (c) assumer des responsabilités additionnelles comme le mariage
   (d) posséder ou avoir en sa possession une arme à feu ou toute autre arme.
6. *Communiquer immédiatement avec le surveillant ou le représentant de la Commission nationale des libérations conditionnelles si arrêté ou interrogé par un officier de police au sujet d'une offense quelconque.*
7. *Obéir à la loi et s'acquitter de toutes les responsabilités légales et sociales.*

APPENDIX B

SUB-HEADINGS FOR

SUPERVISION REPORT

QUARTERLY SUPERVISION REPORT

SUB-HEADINGS

1. Supervision, Experience and Progress
2. Number and Type of Contacts
3. Living Arrangements
4. Employment and Financial Situation
5. Family and Other Relationships
6. Use of Leisure Time
7. (a) Supervisor's Assessment
   (b) Paroled Inmates View
8. Special Instructions

APPENDIX C

STATEMENT FOR RECRUITMENT OF SUBJECTS

RECRUITMENT OF SUBJECTS

I am asking for male volunteers to participate in a study concerning prison and parole conditions. During the course of the study you will play a game in which you will earn points. At the end of the game, your points will be tabulated and converted to cash. In this game, depending on how you play, it is possible to earn up to $14.00. Your participation in the study will require approximately three (3) to three and one half (3-1/2) hours of your time.

APPENDIX D

INITIAL REMARKS TO EXPERIMENTAL SUBJECTS

OPENING REMARKS TO SUBJECT

The purpose of this study is to test certain theories we have concerning the prison and parole systems. Since it would be exceptionally difficult to test these theories in the actual systems, we have chosen a laboratory simulation of the systems as an alternative. This present part of the study is the prison simulation, and during this part of the study there will be no opportunity to earn points.

APPENDIX E

SUBJECT'S STATEMENT OF CONSENT AND RECEIPT

STATEMENT OF WILLINGNESS TO PARTICIPATE

I, _____, do hereby freely consent to be a subject in the experiment at the University of Windsor, concerning parole conditions. I understand that during the course of the experiment I will be able to earn points which will be converted to money and paid to me at the termination of my participation in the study.

Signed _____

Witness _____

Dated _____

RECEIPT

Received from Patrick W. Wood $ _____

_____ Dollars
100

Signed _____

Date _____

APPENDIX F

RULES FOR PRISON SIMULATION

RULES

1. NO TALKING.
2. YOU WILL ADDRESS THE EXPERIMENTER AT ALL TIMES BY "MR" OR "SIR".
3. YOU MUST REMAIN SEATED.
4. IF YOU WISH TO ASK A QUESTION, RAISE YOUR HAND.
5. IF YOU WISH TO LEAVE YOUR SEAT FOR ANY REASON, YOU MUST ASK PERMISSION.
6. TRIPS TO WASHROOM WILL BE UNDER ESCORT TO THE WASHROOM DOOR AND BACK.
7. IF YOU WISH TO SMOKE, YOU MUST ASK PERMISSION.

VIOLATION OF ANY OF THESE RULES WILL RESULT IN TIME SPENT IN THE ISOLATION UNIT.

APPENDIX G

RULES FOR PAROLE SIMULATION

R U L E S

1. The orange light at the top of the panel signifies the start of each trial. Before the yellow choice light will come on, you must press the "cancel" switch. Failure to do so will result in a loss of 5 points.
2. The response to rule #1 must be made within 3 seconds. Taking longer will result in a loss of 5 points.
3. If you wish to communicate, push the "communicate" switch. At end of communication, you must push "cancel" switch. Failure to do so will result in a loss of 5 points.
4. The response to rule #3 must be made within 3 seconds. Taking longer will result in a loss of 5 points.
5. If I wish to communicate, I will push my "communicate" switch. At the end of my communication, you must push the "cancel" switch. Failure to do so will result in a loss of 5 points.
6. The response to rule #5 must be made within 3 seconds. Taking longer will result in a loss of 5 points.
7. If both the orange light and a yellow light are on together, this is not a proper trial. You must push the "cancel" switch. Failure to do so will result in a loss of 5 points.
8. The response to rule #7 must be made within 3 seconds. Taking longer will result in a loss of 5 points.
9. Each response on each matrix must be made within 5 seconds. Taking longer will result in a loss of 5 points.
10. In addition to the penalties listed above, a loud buzzer will also be presented for each error.

APPENDIX H

INSTRUCTIONS FOR STATIC RULES GROUP

INSTRUCTIONS TO STATIC RULES GROUP

You have experienced the prison simulation in Phase I, and we will now begin the parole simulation. To accomplish this we are going to play a game. The game is called "It's Your Choice".

The object of the game is for both of us to earn as many points as we can. We both earn points from our choice of lights on the panel in front of you. The number of points you accumulate is important to you, since they will later be converted to money. The number of points I accumulate is important to me, as my points will give me information which will be used in another study. The more points I earn, the more information I will have. Both the money and the points in this game represent actual aspects of the parole situation.

The game will be played as follows, and I will demonstrate each move. The orange light at the top of your panel will come on briefly indicating the start of each trial. (Turn orange light on and off). This will be followed by a yellow light. The yellow light indicates the choice of light I am suggesting you make. I will always choose the light I suggest. If you wish to cooperate, choose the red light directly opposite the yellow light by activating the appropriate switch. While I would like you to always choose the light I suggest, you are not obligated to do so. On each trial you may choose either of the other two lights.

Leave your choice light on and we will both be able to see what choices we have made. We will both record our own points after which I will switch off the yellow light and you will then switch of the red light. This will signify the end of that trial. Each trial will

begin in the same way, starting with the orange light at the top of the panel. I will also be recording your score as a check on accuracy.

In addition to the game rules already cited, the following rules which are posted in front of you are also in force (read and demonstrate).

1) The orange light at the top of the panel signifies the start of each trial. Before the yellow choice light will come on, you must press the "cancel" switch. Failure to do so will result in a loss of 5 points.
2) The response to rule #1 must be made within 3 seconds. Taking longer will result in a loss of 5 points.
3) If you wish to communicate, push the "communicate" switch. At end of communication, you must push "cancel" switch. Failure to do so will result in a loss of 5 points.
4) The response to rule #3 must be made within 3 seconds. Taking longer will result in a loss of 5 points.
5) If I wish to communicate, I will push my "communicate" switch. At the end of my communication, you must push the "cancel" switch. Failure to do so will result in a loss of 5 points.
6) The response to rule #5 must be made within 3 seconds. Taking longer will result in a loss of 5 points.
7) If both the orange light and a yellow light are on together, this is not a proper trial. You must push the "cancel" switch. Failure to do so will result in a loss of 5 points.
8) The response to rule #7 must be made within 3 seconds. Taking longer will result in a loss of 5 points.

9. Each response on each matrix must be made within 5 seconds. Taking longer will result in a loss of 5 points.
10. In addition to the penalties listed above, a loud buzzer will also be presented for each error.

When wishing to communicate, pick up the telephone immediately after you push the communicate switch. As well, if your communicate light comes on at any time, that means I wish to communicate, so pick up your telephone.

To determine how the scoring is done, look at the matrix I am now handing you. (Hands S Matrix #1). Your choices are represented by the three columns, mine by the three rows. The block on the matrix in which our choices intersect is what gives us our payoff. If we both choose "TOP", we both get three (3) points. If I choose "TOP" and you choose "CENTER", you get seven (7) points but I get zero (0) points. If I choose "TOP" and you choose "BOTTOM", then I get seven (7) points and you get zero (0) points. So on each trial, you see that it is possible for you to earn either MORE or LESS points by NOT following my suggestions. While you can earn more points by not following my suggested choices, I cannot earn any points unless you do follow my suggested choices. I would therefore like you to cooperate by choosing the light I suggest on each trial. If you do not, there is a possibility you will be subjected to a loud unpleasant buzzer, and on the immediately following trial, I will choose the bottom light which will cause you to lose points. I will only choose the bottom light when you do not cooperate on the previous trial. If you do not cooperate with me when I choose the bottom light, again you may hear the

unpleasant buzzer, and on the following trial I may again choose the bottom light. The probability of these unpleasant events remains the same throughout all matrices. In this phase, we will play one hundred (100) choices on each of four (4) matrices. Each matrix has higher payoffs. Each point earned will be worth 1/4¢. Remember that in addition to the possible penalties for not cooperating on each matrix, there are also five (5) point penalties associated with not following the rules posted in front of you. We will run through 6 free trials, where you will neither gain nor lose points. For the first 3 only we will communicate by telephone. Any questions? Let's begin!

APPENDIX I

INSTRUCTIONS FOR FLEXIBLE RULES (CONTINGENCY MANAGEMENT) GROUP

INSTRUCTIONS TO FLEXIBLE RULES GROUP

You have experienced the prison simulation in Phase I, and we will now begin the parole simulation. To accomplish this we are going to play a game. The game is called "It's Your Choice". The object of the game is for both of us to earn as many points as we can. We both earn points from our choice of lights on the panel in front of you. The number of points you accumulate is important to you, since they will later be converted to money. The number of points I accumulate is important to me, as my points will give me information which will be used in another study. The more points I earn, the more information I will have. Both the money and the points in this game represent actual aspects of the parole situation.

The game will be played as follows, and I will demonstrate each move. The orange light at the top of your panel will come on briefly, indicating the start of each trial. (Turn orange light on and off). This will be followed by a yellow light. The yellow light indicates the choice of light I am suggesting you make. I will always choose the light I suggest. If you wish to cooperate choose the red light directly opposite the yellow light by activating the appropriate switch. While I would like you to always choose the light I suggest, you are not obligated to do so. On each trial you may choose either of the other two (2) lights.

Leave your choice light on and we will both be able to see what choices we have made. We will both record our own points, after which I will switch off the yellow light and you will then switch off the red light. This will signify the end of that trial. Each trial will begin

in the same way, starting with the orange light at the top of the panel. I will also be recording your score as a check on accuracy.

In addition to the game rules already cited, the following rules which are posted in front of you are also in force (read and demonstrate).

1) The orange light at the top of the panel signifies the start of each trial. Before the yellow choice light will come on, you must press the "cancel" switch. Failure to do so will result in a loss of 5 points.

2) The response to rule #1 must be made within 3 seconds. Taking longer will result in a loss of 5 points.

3) If you wish to communicate, push the "communicate" switch. At end of communication, you must push "cancel" switch. Failure to do so will result in a loss of 5 points.

4) The response to rule #3 must be made within 3 seconds. Taking longer will result in a loss of 5 points.

5) If I wish to communicate, I will push my "communicate" switch. At the end of my communication, you must push the "cancel" switch. Failure to do so will result in a loss of 5 points.

6) The response to rule #5 must be made within 3 seconds. Taking longer will result in a loss of 5 points.

7) If both the orange light and a yellow light are on together, this is not a proper trial. You must push the "cancel" switch. Failure to do so will result in a loss of 5 points.

8) The response to rule #7 must be made within 3 seconds. Taking longer will result in a loss of 5 points.

9. Each response on each matrix must be made within 5 seconds. Taking longer will result in a loss of 5 points.

10. In addition to the penalties listed above, a loud buzzer will also be presented for each error.

When wishing to communicate, pick up the telephone immediately after you push the communicate switch. As well, if your communicate light comes on at any time, that means I wish to communicate, so pick up your telephone.

The number of plays for which these extra rules will be in force is partially up to you. This will be explained in a few minutes.

To determine how the scoring is done, look at the matrix I am now handing you. (Hands S Matrix #1). Your choices are represented by the three columns, mine by the three rows. The block on the matrix in which our choices intersect is what gives us our payoff. If we both choose "TOP", we both get three (3) points. If I choose "TOP" and you choose "CENTER", you get seven (7) points but I get zero (0) points. If I choose "TOP" and you choose "BOTTOM", then I get seven (7) points and you get zero (0) points. So on each trial, you see that it is possible for you to earn either MORE or LESS points by NOT following my suggestions. While you can earn more points by not following my suggested choices, I cannot earn any points unless you do follow my suggested choices. I would therefore like you to cooperate by choosing the light I suggest on each trial.

As an inducement for you to follow my suggestions, for every fifty (50) consecutive times you choose the light I suggest, I will

allow you to delete one of those posted rules of your choosing. It is possible that before we finish playing, those extra rules will no longer be in force.

For not following my suggested choices, there is a possibility you will be subjected to a loud unpleasant buzzer, and on the immediately following trial, I will choose the bottom light which will cause you to lose points. I will only choose the bottom light when you do not cooperate on the previous trial. If you do not cooperate with me when I choose the bottom light, again you may hear the unpleasant buzzer, and on the following trial I may again choose the bottom light. The probability of these unpleasant events remains the same throughout all matrices. In this phase, we will play one hundred (100) choices on each of four (4) matrices. Each matrix has higher payoffs. Each point earned will be worth 1/4¢. Remember that in addition to the possible penalties for not cooperating on each matrix, there are also five (5) point penalties associated with not following the rules posted in front of you.

Keep in mind also that you control the number of plays for which these extra rules will be in force. We will run through 6 free trials, where you will neither gain nor lose points. For the first 3 only, we will communicate by telephone. Any questions? Let's begin!

APPENDIX J.

EXPERIMENTER'S MASTER STRATEGY

AND SCORE SHEETS

MASTER SHEET
EXPERIMENTER
STRATEGY AND SCORE SHEET

SUBJECT # MATRIX #I (50% PUNISHMENT) GROUP

PLAY	P	C	D	AMT	PLAY	P	C	D	AMT	PLAY	P	C	D	AMT	PLAY	P	C	D	AMT
1	CEN	P			28	CEN	-			55	CEN	P			82	CEN	-		
2	TOP	-			29	TOP	-			56	TOP	-			83	TOP	P		
3	CEN	-			30	TOP	-			57	CEN	P			84	CEN	P		
4	CEN				31	TOP	P			58	CEN	-			85	CEN	-		
5	TOP	-			32	CEN	P			59	TOP	P			86	TOP	P		
6	TOP	-			33	TOP	P			60	CEN	-			87	CEN	P		
7	TOP	P			34	TOP	P			61	TOP	-			88	CEN	-		
8	CEN	P			35	CEN	-			62	CEN	-			89	TOP	P		
9	CEN	-			36	TOP	P			63	TOP	P			90	CEN	P		
10	CEN	-			37	TOP	P			64	TOP	P			91	TOP	P		
11	CEN	P			38	TOP	-			65	CEN	-			92	CEN	P		
12	TOP	-			39	CEN	P			66	TOP	P			93	TOP	-		
13	TOP	-			40	TOP	P			67	CEN	-			94	CEN	P		
14	CEN	-			41	CEN	P			68	CEN	-			95	CEN	-		
15	CEN	-			42	TOP	P			69	TOP	-			96	TOP	P		
16	TOP	P			43	CEN	P			70	TOP	P			97	CEN	P		
17	TOP	P			44	CEN	-			71	CEN	P			98	TOP	P		
18	TOP	-			45	CEN	P			72	CEN	P			99	CEN	P		
19	TOP	P			46	TOP	-			73	CEN	-			100	TOP	-		
20	CEN	-			47	TOP	-			74	TOP	-							
21	CEN	-			48	TOP	-			75	TOP	-			TOTAL POINTS				
22	TOP	P			49	CEN	-			76	CEN	P							
23	TOP	-			50	CEN	P			77	TOP	-			TOTAL CASH				
24	TOP	P			51	CEN	-			78	CEN	P							
25	TOP	-			52	TOP	-			79	CEN	P			TOTAL "C"				
26	TOP	-			53	CEN	P			80	CEN	-							
27	CEN	P			54	TOP	P			81	TOP	-			TOTAL "D"				

MASTER SHEET
EXPERIMENTER
STRATEGY AND SCORE SHEET

SUBJECT # MATRIX #2 (50% PUNISHMENT) GROUP

PLAY	P	C	D	AMT	PLAY	P	C	D	AMT	PLAY	P	C	D	AMT	PLAY	P	C	D	AMT
1	TOP			-	26	TOP			P	51	TOP			P	76	TOP			-
2	TOP			P	27	CEN			P	52	TOP			P	77	CEN			P
3	CEN			P	28	TOP			-	53	CEN			-	78	TOP			P
4	CEN			P	29	CEN			-	54	CEN			-	79	CEN			P
5	TOP			-	30	CEN			P	55	TOP			-	80	CEN			-
6	CEN			P	31	CEN			P	56	TOP			P	81	TOP			-
7	CEN			P	32	CEN			P	57	CEN			-	82	TOP			P
8	CEN			-	33	CEN			P	58	TOP			-	83	CEN			P
9	CEN			P	34	TOP			-	59	TOP			P	84	TOP			P
10	TOP			-	35	TOP			-	60	CEN			-	85	CEN			-
11	TOP			-	36	TOP			P	61	TOP			-	86	TOP			-
12	TOP			-	37	CEN			P	62	TOP			-	87	CEN			P
13	CEN			P	38	TOP			P	63	TOP			-	88	CEN			P
14	CEN			P	39	CEN			P	64	CEN			P	89	TOP			P
15	TOP			P	40	CEN			-	65	CEN			P	90	TOP			-
16	CEN			P	41	TOP			-	66	TOP			P	91	TOP			-
17	CEN			-	42	TOP			P	67	TOP			P	92	CEN			-
18	CEN			P	43	TOP			-	68	CEN			P	93	TOP			P
19	TOP			-	44	TOP			-	69	CEN			P	94	CEN			-
20	TOP			-	45	CEN			P	70	CEN			P	95	CEN			-
21	CEN			-	46	TOP			P	71	TOP			-	96	TOP			P
22	CEN			-	47	CEN			-	72	CEN			-	97	TOP			-
23	CEN			P	48	TOP			-	73	CEN			P	98	TOP			-
24	TOP			-	49	CEN			-	74	TOP			-	99	TOP			-
25	CEN			P	50	CEN			P	75	TOP			-	100	CEN			-

MASTER SHEET
EXPERIMENTER
STRATEGY AND SCORE SHEET

SUBJECT # MATRIX #3 (50% PUNISHMENT) GROUP

PLAY	P	C	D	AMT	PLAY	P	C	D	AMT	PLAY	P	C	D	AMT	PLAY	P	C	D	AMT
1	TOP	P			26	TOP	P			51	CEN	-			76	TOP	-		
2	TOP	-			27	TOP	-			52	CEN	-			77	TOP	P		
3	CEN	-			28	TOP	P			53	CEN	P			78	CEN	P		
4	TOP	-			29	TOP	-			54	TOP	-			79	CEN	P		
5	TOP	P			30	CEN	-			55	TOP	-			80	TOP	-		
6	TOP	-			31	CEN	-			56	TOP	-			81	CEN	P		
7	TOP	-			32	TOP	P			57	CEN	-			82	TOP	P		
8	CEN	-			33	CEN	P			58	TOP	P			83	TOP	-		
9	TOP	P			34	CEN	-			59	CEN	P			84	CEN	P		
10	CEN	-			35	CEN	-			60	CEN	P			85	TOP	-		
11	TOP	P			36	CEN	P			61	CEN	P			86	TOP	P		
12	TOP	P			37	CEN	P			62	TOP	P			87	TOP	P		
13	TOP	-			38	CEN	-			63	TOP	-			88	TOP	-		
14	TOP	P			39	CEN	P			64	CEN	-			89	CEN	P		
15	CEN	P			40	TOP	-			65	CEN	P			90	CAN	P		
16	CEN	-			41	TOP	P			66	CEN	P			91	CEN	P		
17	TOP	-			42	TOP	-			67	TOP	-			92	CEN	P		
18	CEN	-			43	CEN	-			68	TOP	P			93	TOP	-		
19	TOP	P			44	TOP	P			69	TOP	P			94	CEN	-		
20	TOP	P			45	CEN	-			70	CEN	-			95	TOP	-		
21	CEN	P			46	TOP	P			71	CEN	-			96	CEN	-		
22	CEN	-			47	TOP	-			72	CEN	P			97	CEN	P		
23	CEN	-			48	TOP	P			73	TOP	P			98	CEN	-		
24	TOP	P			49	CEN	-			74	CEN	-			99	CEN	P		
25	CEN	P			50	CEN	-			75	TOP	P			100	TOP	-		

MASTER SHEET
EXPERIMENTER
STRATEGY AND SCORE SHEET

SUBJECT # MATRIX #4 (50% PUNISHMENT) GROUP

	PLAY	P	C	D	AMT		PLAY	P	C	D	AMT		PLAY	P	C	D	AMT		PLAY	P	C	D	AMT
1	CEN			-		26	TOP	P				51	CEN			-		76	TOP	P			
2	TOP			-		27	TOP	P				52	CEN	P				77	TOP			-	
3	TOP			-		28	CEN	P				53	TOP	P				78	CEN	P			
4	CEN			-		29	CEN	P				54	TOP	P				79	TOP			-	
5	TOP			-		30	TOP	P				55	TOP			-		80	CEN			-	
6	CEN			-		31	TOP			-		56	CEN			-		81	CEN	P			
7	TOP	P				32	TOP	P				57	CEN	P				82	CEN			-	
8	CEN	P				33	CEN	P				58	TOP			-		83	TOP			-	
9	TOP	P				34	TOP			-		59	TOP			-		84	TOP			-	
10	CEN	P				35	CEN	P				60	CEN	P				85	CEN	P			
11	TOP			-		36	TOP			-		61	CEN			-		86	CEN	P			
12	CEN			-		37	TOP			-		62	TOP			-		87	CEN			-	
13	TOP			-		38	TOP	P				63	TOP	P				88	TOP			-	
14	CEN			-		39	TOP	P				64	TOP			-		89	TOP	P			
15	CEN			-		40	CEN			-		65	CEN	P				90	TOP			-	
16	TOP	P				41	TOP			-		66	CEN	P				91	TOP	P			
17	TOP			-		42	CEN			-		67	TOP			-		92	CEN			-	
18	TOP	P				43	CEN			-		68	CEN	P				93	CEN			-	
19	TOP			-		44	CEN	P				69	CEN	P				94	TOP			-	
20	CEN	P				45	TOP			-		70	TOP	P				95	TOP			-	
21	TOP			-		46	CEN	P				71	CEN	P				96	CEN	P			
22	TOP	P				47	CEN	P				72	CEN	P				97	TOP	P			
23	TOP	P				48	CEN			-		73	CEN	P				98	CEN	P			
24	CEN	P				49	CEN			-		74	CEN	P				99	CEN			-	
25	CEN			-		50	CEN	P				75	TOP			-		100	TOP			-	

MASTER SHEET
EXPERIMENTER
STRATEGY AND SCORE SHEET

SUBJECT # MATRIX #5 (0% PUNISHMENT) GROUP

PLAY	C	D	AMT	PLAY	C	D	AMT	PLAY	C	D	AMT	PLAY	C	D	AMT
1	CEN			26	CEN			51	ROT			76	TOP		
2	TOP			27	BOT			52	CEN			77	BOT		
3	BOT			28	CEN			53	CEN			78	CEN		
4	CEN			29	TOP			54	TOP			79	BOT		
5	TOP			30	TOP			55	TOP			80	CEN		
6	TOP			31	BOT			56	ROT			81	BOT		
7	CEN			32	CEN			57	CEN			82	TOP		
8	TOP			33	BOT			58	TOP			83	BOT		
9	BOT			34	CEN			59	CEN			84	CEN		
10	CEN			35	TOP			60	BOT			85	BOT		
11	BOT			36	TOP			61	CEN			86	BOT		
12	BOT			37	BOT			62	BOT			87	BOT		
13	TOP			38	BOT			63	BOT			88	TOP		
14	TOP			39	TOP			64	TOP			89	BOT		
15	CEN			40	CEN			65	TOP			90	BOT		
16	TOP			41	TOP			66	BOT			91	CEN		
17	CEN			42	BOT			67	BOT			92	TOP		
18	CEN			43	TOP			68	TOP			93	CEN		
19	CEN			44	BOT			69	CEN			94	CEN		
20	BOT			45	CEN			70	CEN			95	TOP		
21	TOP			46	TOP			71	BOT			96	TOP		
22	CEN			47	CEN			72	CEN			97	TOP		
23	BOT			48	CEN			73	BOT			98	BOT		
24	TOP			49	BOT			74	TOP			99	BOT		
25	CEN			50	TOP			75	TOP			100	CEN		

APPENDIX K

SUBJECT'S SCORE SHEET

SUBJECT SCORE SHEET

SUBJECT # MATRIX # GROUP

AMT	AMT	AMT	AMT	AMT	
1	22	43	64	85	
2	23	44	65	86	
3	24	45	66	87	
4	25	46	67	88	
5	26	47	68	89	
6	27	48	69	90	
7	28	49	70	91	
8	29	50	71	92	TOTAL POINTS
9	30	51	72	93	
10	31	52	73	94	TOTAL CASH
11	32	53	74	95	
12	33	54	75	96	
13	34	55	76	97	
14	35	56	77	98	
15	36	57	78	99	
16	37	58	79	100	
17	38	59	80		
18	39	60	81		
19	40	61	82		
20	41	62	83		
21	42	63	84		

APPENDIX L

RAW DATA

RAW DATA FLEXIBLE RULES GROUP

Replication #1

	M1	M2	M3	M4	M5	Age
S_1	100	100	100	96	96	23
S_2	100	100	100	100	100	25
S_3	83	74	100	100	59	28
S_4	100	100	93	65	55	23

Replication #2

S_5	100	100	83	97	45	22
S_6	99	84	93	91	70	20
S_7	98	96	95	83	55	23
S_8	23	83	99	93	20	29

Percentage of Cooperative Responses on Matrices 1 through 4

$\Sigma X = 2928$

$\bar{X} = 91.5$

Matrix 5

$\Sigma X = 500$

$\bar{X} = 62.5$

Age of Subjects

$\Sigma X = 193$ yrs.

$\bar{X} = 24.13$ yrs.

RAW DATA STATIC RULES GROUP STUDY # I

	M1	M2	M3	M4	M5	Age
S_1	56	100	4	56	58	29
S_2	100	78	47	93	93	27
S_3	12	66	61	76	60	27
S_4	98	84	73	88	90	26
			Replication #2			
S_5	57	70	71	90	43	23
S_6	83	93	74	78	1	23
S_7	45	65	79	62	26	29
S_8	13	76	72	86	23	22

Percentage of Cooperative Responses on Matrices 1 through 4

$\Sigma X = 2206$

$\bar{X} = 68.93$

Percentage of Cooperative Responses on Matrix 5

$\Sigma X = 394$

$\bar{X} = 49.25$

Age of Subjects

$\Sigma X = 206$ yrs.

$\bar{X} = 25.8$ yrs.

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Patrick W. Wood was born on October 17, 1939 in Souris, Prince Edward Island. In June, 1957 he graduated from Souris High School. In September, 1963 he enrolled at St. Francis Xavier University, Antigonish, N.S., from where he graduated in May, 1967 with a Bachelor of Arts degree. He has been employed with The Correctional Service of Canada since January, 1969, and is presently Area Manager for the London District Office.